BioNanoScience 2016 vol.6 N4, pages 293-296

Structural Changes in the Pancreas and Its Blood Vessels at the Early Stages of Ischemia

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Abstract

© 2016, Springer Science+Business Media New York.The rat pancreas structure was studied in the settings of experimental ischemia using the methods of electron microscopy, EPR and NMR spectroscopy. The earliest changes in the pancreatic capillary structure occur in 5 min after ischemia. As the ischemia progresses, there is an increased intensity of signal from iron-sulfur proteins as well as its decrease from an oxidized center of succinate coenzyme reductase, a decreased intensity of that from phosphocreatine and ATP γ-fraction as well as a rising intensity of signal from inorganic phosphate.

http://dx.doi.org/10.1007/s12668-016-0265-2

Keywords

Blood circulation, Electron microscopy, EPR spectroscopy, Ischemia, NMR spectroscopy, Pancreas